ABSTRACT

A wireless communication apparatus, a wireless communication system, and a wireless communication method enabling any plurality of apparatuses to engage in time division multiplex communication for communicating a plurality of data even if not all apparatuses in the network are accurately synchronized, comprising as a time division multiplex connection method of an autonomous distributed network performing a continuous receiving (scan) operation over a frame period so as to obtain a grasp of the wireless communication apparatuses located at the neighborhood at predetermined periods (ST1 to ST3), receiving beacon signals from other wireless communication apparatuses (ST4) to obtain a grasp of the wireless communication apparatuses communicable with, calculating the reception slot of the wireless communication apparatus from the received beacon information, setting its own reception slot so as not to collide with the set situation thereof (ST7), and forming network autonomously engaging in time division multiplex communication with other wireless communication apparatuses located at the neighborhood.

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